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MAKI, STEVEN D

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* RICHARD HEINEN

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Appeal 2008-2756  
Application 10/775,795  
Technology Center 1700

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Decided: August 21, 2008

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Before EDWARD C. KIMLIN, LINDA M. GAUDETTE, and  
KAREN M. HASTINGS, *Administrative Patent Judges*.

HASTINGS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134 from the Examiner's final rejection of claims 1-21. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

## BACKGROUND

The invention relates to a pneumatic tire tread.

Claims 1 and 21 on appeal are illustrative:

1. A pneumatic tire, the tire comprising a tread, the tread comprising two circumferential grooves and a circumferentially extending column of tetragon shaped blocks located between the two circumferential grooves,

in the circumferential extending column of blocks, each block is separated from an adjacent block by an inclined lateral groove, the inclined lateral groove forming an angle between  $10^{\circ}$  to  $25^{\circ}$  with one of the circumferential grooves,

the tread being characterized by each block in the column having a circumferential length  $L$  at least equal to the normal pressure footprint length  $L_F$  of the tire.

21. A pneumatic tire, the tire comprising a tread, the tread being divided at a tread centerline into two tread halves, the tread comprising a single circumferentially extending column of tetragon shaped blocks located only in one tread half, the column being located between a two circumferential grooves, and

in the circumferential extending column of blocks, each block is separated from an adjacent block by an inclined lateral groove, the inclined lateral groove forming an angle between  $10^{\circ}$  to  $25^{\circ}$  with one of the circumferential grooves, each block in the column having a circumferential length  $L$  at least equal to the normal pressure footprint length  $L_F$  of the tire.

The following prior art is relied upon by the Examiner in rejecting the claims under appeal:

Hamada (JP '207)	JP 06135207 A	May. 17, 1994
Himuro (JP '413)	JP 11005413 A	Jan. 12, 1999
Himuro (EP '456)	EP 0 890 456 A2	Jan. 13, 1999
Cesarini	WO 00/30874	Jun. 2, 2000
Iwamura	6,109,317	Aug. 29, 2000

The appealed claims stand rejected under 35 U.S.C. § 103(a) as follows:

- (a) claims 1, 5, 10-12, 15-16, and 19-20 over EP ‘456 in view of at least one of JP ‘207, Cesarini, and Iwamura,
- (b) claims 1, 5-7, 11, 12, 15, 16, 20, and 21 over JP ‘413 in view of at least one of JP ‘207, Cesarini, and Iwamura,
- (c) claim 18 over EP ‘456 in view of at least one of JP ‘207, Cesarini, and Iwamura, further with JP ‘907,
- (d) claims 17 and 18 over EP ‘456 in view of at least one of JP ‘207, Cesarini, and Iwamura, further with Nakagawa,
- (e) claims 2-4 over JP ‘413 in view of at least one of JP ‘207, Cesarini, and Iwamura, further with DE ‘574 or Gerresheim,
- (f) claims 8 and 9 over JP ‘413 in view of at least one of JP ‘207, Cesarini, and Iwamura, further with Himuro or Boiocchi,
- (g) claims 13 and 14 over JP ‘413 in view of at least one of JP ‘207, Cesarini, and Iwamura, further with JP ‘508, and
- (h) claim 18 over JP ‘413 in view of at least one of JP ‘207, Cesarini, and Iwamura, further with JP ‘907.

Appellant only requests review of grounds (a) and (b) (Br. 3; Ans. 2). Therefore, we summarily affirm the remaining grounds of rejection (c)-(h).

#### ISSUE ON APPEAL

Has Appellant shown reversible error in the Examiner’s determination that a person having ordinary skill in the art would have found it obvious to arrive at the claimed invention in view of the applied prior art?

## PRINCIPLES OF LAW

“Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains.’” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734 (2007).

Facts relevant to a determination of obviousness include (1) the scope and content of the prior art, (2) any differences between the claimed invention and the prior art, (3) the level of skill in the art, and (4) any relevant objective evidence of obviousness or non-obviousness. *KSR*, 127 S. Ct. at 1734; *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966).

*KSR* also states:

Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.

*KSR*, 127 S. Ct. at 1740-41.

## ANALYSIS

We have thoroughly reviewed each of Appellant's arguments for patentability. However, we are in complete agreement with the Examiner that the claimed subject matter is unpatentable over the cited prior art. Since we concur with the Examiner's reasoned analysis and application of the prior art, as well as his thorough disposition of the arguments raised by

Appellant, we will adopt the Examiner's reasoning as our own in sustaining the rejections of record. We add the following for emphasis only.

*Obviousness over EP '456 - Claims 1, 5, 10-12, 15, 16, 19, and 20*

Appellant does not argue any of the claims separately with any reasonable specificity (App. Br. 3). We therefore select independent claim 1 to represent this issue on appeal.

There is no dispute that EP '456 describes an all season pneumatic tire comprising a tread with inclined lateral grooves (i.e., grooves 2) separating tetragonal blocks (i.e., blocks 4) as claimed except it does not explicitly teach that "each block [i.e., blocks (4) of EP '456] in the column has a circumferential length  $L$  at least equal to the normal footprint  $L_f$  of the tire" as recited in claim 1 (Ans. 5). There is also no dispute that JP '207, Cesarini (WO '874), and Iwamura each describes a tire tread design that includes interior inclined lateral grooves that are longer than a footprint of the respective associated tire.

The Examiner added at least one of JP '207, Cesarini, and Iwamura (individually or collectively) to exemplify the obviousness of these inclined lateral grooves that are longer than a footprint of a tire in various tire tread designs, in order, for example, to aid in the drainage of water (Ans. 5-10). The Examiner concluded that "it would have been [prima facie] obvious to one of ordinary skill in the art to provide Europe '456's tire *with a footprint* such that the circumferential length of the steep slant grooves and the circumferential length of the tetragon blocks is[sic] at least 100% [equal to] ...of the footprint length...at normal pressure." (Ans. 7-8). We fully agree

with the Examiner's findings of fact and conclusion of obviousness based on these teachings.

The focus of Appellant's arguments is that there is no motivation, teaching or suggestion to combine the teachings of each respective secondary reference with EP '456. Specifically, Appellant contends that: 1) JP '207 does not teach that the slanted grooves 26 are for removing water (App. Br. 5); 2) Cesarini teaches away from forming isolated blocks in a tire tread (App. Br. 8); 3) since EP '456 (as well as JP '207) already contains continuous circumferential grooves 1 to remove water, there is no motivation to combine the teachings of Cesarini therewith (App. Br. 9); and, 4) since Iwamura teaches that the slanted grooves 2 are arranged such that at least five grooves always appear in the ground contact patch (i.e., the footprint), it would not be likely that a combination of EP '456 and Iwamura would result in a tire tread as claimed in claim 1 (App. Br. 10). None of Appellant's arguments convince us of reversible error in the Examiner's conclusion of obviousness.

As the Examiner pointed out, the applied prior art as a whole suggests the desirability of steep slanted grooves located within a tire tread which extend at least as long as a footprint of the tire. We find that these references exemplify that, in general, it was well known in the prior art to make these types of grooves longer than a footprint as discussed in detail by the Examiner. Furthermore, as the Examiner pointed out, EP '456 teaches that each of the tetragonal blocks 4 (and thus each of the accompanying steep slant separating grooves 2), has "a relatively large circumferential component" (EP '456, col. 6, ll. 44-45; Ans. 6), which further supports the

obviousness of ensuring these blocks are “at least equal to the normal pressure footprint length  $L_F$  of the tire” as required by claim 1.

With respect to Appellant’s contention that since EP ‘456 (as well as JP ‘207) already contains continuous circumferential grooves 1 to remove water, there is no motivation to combine the teachings of Cesarini therewith (App. Br. 9), we also determine that the use of *additional* water removal grooves, such as interior steep slanted grooves, in addition to the well known endless circumferential grooves (e.g., grooves 1 of EP ‘456), would have been *prima facie* obvious for the predictable advantage of increased water removal capabilities.

Moreover, Appellant’s arguments miss the thrust of the Examiner’s rejection, i.e., the obviousness of ensuring that the footprint of EP ‘456 has a footprint with steep slant grooves 2 at least as long as the footprint as exemplified in each secondary reference. It is well settled that it is not necessary for a finding of obviousness that all the features of one reference be bodily incorporated into the invention of another reference. *In re Griver*, 354 F.2d 377, 381 (CCPA 1966); *see also In re Billingsley*, 279 F.2d 689, 691 (CCPA 1960) (*prima facie* obvious to provide grooves as shown in a tire tread of one prior art reference into the differing specific tire tread of another prior art reference).

Recently, in *KSR Int’l Co. v. Teleflex Inc.*, the Supreme Court advised that the analysis in support of a conclusion of obviousness need not seek out express teachings that are directed to the subject matter of Appellants’ claim since the inferences and creative steps that a person of ordinary skill in the art would have employed can be considered. *KSR*, 127 S. Ct. at 1740-41. One of ordinary skill in the art is also a person of ordinary creativity, not an



automaton. *KSR*, 127 S. Ct. at 1742. Certainly, skill in the art is presumed and based on the collective teachings of the applied prior art we find that one of ordinary skill in the art would have appreciated that making the interior steep slant grooves 2 of EP ‘456 and concomitantly the blocks 4 longer than a footprint would have achieved the predictable result of ensuring increased water removal. *Id.* at 1739, 1740. *See also Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1364 (Fed. Cir. 2007) (the expectation of success need only be reasonable, not absolute).

Appellant has not shown that there is more than a predictable result flowing from the use of inclined grooves 2 and blocks 4 at least equal to a normal pressure footprint length of the tire in EP ‘456. Appellant bases no argument upon objective evidence of nonobviousness, such as unexpected results, which would serve to rebut the inference of obviousness established by the applied prior art.

As a final note, Appellant has chosen to describe the invention in terms of certain physical characteristics of the tire tread relative to its footprint. Merely choosing to describe the invention in terms of certain physical characteristics not expressly disclosed in the prior art (namely, EP ‘456 is silent as to its footprint) does not render the claimed subject matter patentable where these characteristics are believed to be inherent in the prior art. *In re Skoner*, 517 F.2d 947, 950 (CCPA 1975). It is well settled that when a claimed process or product reasonably appears to be substantially the same as a process or product disclosed by the prior art, the burden is on the applicant to prove with objective evidence that the prior art process or product does not necessarily or inherently possess characteristics attributed to the claimed process or product. *In re Spada*, 911 F.2d 705, 708 (Fed. Cir.

1990); *In re Best*, 562 F.2d 1252, 1255 (CCPA 1977). In the present case, the tire tread of EP ‘456 appears to be sufficiently like a tire tread encompassed by claim 1 on appeal to shift to Appellant the burden of demonstrating with objective evidence that there is a patentable distinction between the tire treads. Appellant provides no evidence or convincing line of technical reasoning why EP ‘456 does not indeed have a footprint as claimed.

Therefore, we sustain the Examiner’s § 103 rejection of claim 1 (as well as claims not separately argued) based on the combined teachings of EP ‘456, JP ‘207, Cesarini, and Iwamura.

*Obviousness over JP ‘413 - Claims 1, 5-7, 11, 12, 15, 16, 20, and 21*

Appellant does not argue any of the claims separately with any reasonable specificity (App. Br. 12-18) except for independent claim 21. We, therefore select independent claims 1 and 21 to represent this issue on appeal.

The Examiner found, and the Appellant does not dispute, that JP ‘413 describes an all weather pneumatic passenger tire comprising a tread with inclined grooves 6 separating tetragonal blocks 8 as claimed in claim 1 and 21 except it does not explicitly teach that “each block [i.e., blocks (8) of JP’413] in the column has a circumferential length L at least equal to the normal footprint  $L_f$  of the tire” as recited in claim 1 (*see, e.g.,* Ans. 11-12).

We note that the tire tread of JP ‘413 is similar to that shown in the alternative primary reference EP ‘456 except that JP ‘413 shows two columns (versus one center column in EP ‘456) of tetragonal blocks with

steep inclined grooves 6 in the middle of the tire tread (*see* Fig. 1 of JP ‘413).

The Examiner once again added at least one of JP ‘207, Cesarini, and Iwamura (individually or collectively) to exemplify the obviousness of inclined lateral grooves that are longer than a footprint of a tire in various tire tread designs, in order, for example, to aid in the drainage of water (Ans. 12-15). The Examiner concluded that “it would have been [prima facie] obvious to one of ordinary skill in the art to provide Japan 413’s tire *with a footprint* such that the circumferential length of the slant grooves and the circumferential length of the central blocks separated by the steep slant grooves is at least 100% [equal to] ...of the footprint length...” (Ans. 12).

We fully agree with the Examiner’s findings of fact and conclusion of obviousness based on these teachings for the reasons provided in the Answer as well as those reasons we discussed above. Appellant’s arguments that the teachings of the various secondary references, either individually or collectively, are not combinable with JP ‘413 are unpersuasive of error in the Examiner’s conclusion of obviousness for the same reasons as discussed above with respect to the rejection based on EP ‘456.

Therefore, we sustain the Examiner’s § 103 rejection of claim 1 (as well as claims not separately argued) based on the combined teachings of JP ‘413, JP ‘207, Cesarini, and Iwamura.

*Rejection of claim 21 based on JP ‘413*

Appellant presents one additional argument regarding claim 21; that since JP ‘413 teaches two columns of tetragon shaped blocks, it does not teach or suggest an asymmetrical tire tread. This argument fails to appreciate the scope of Appellant’s claim.

While we agree with Appellant that JP ‘413 does not suggest an asymmetrical tire tread, we do not agree that claim 21 is so limited. Claim 21 uses open claim language; namely, it recites “the tread *comprising* a single circumferentially extending column of blocks located in only one tread half.” The transitional term “comprising” is “inclusive or open-ended and does not exclude additional, unrecited elements or method steps.” *Georgia-Pacific Corp. v. United States Gypsum Co.*, 195 F.3d 1322, 1327 (Fed. Cir. 1999). Therefore, Appellant’s use of the term “comprising” permits the presence of additional elements, such as the second column of tetragonal blocks which is also located in only one tread half, namely in the **other** tread half, of ‘JP 413.

Therefore, we sustain the Examiner’s § 103 rejection of claim 21 based on the combined teachings of JP ‘413, JP ‘207, Cesarini, and Iwamura.

#### PROCEDURAL MATTER

Appellant's Reply Brief points out that the USPTO has issued new Examination Guidelines (as a result of the Supreme Court decision in *KSR*) subsequent to both the Appeal Brief and the Examiner’s Answer (Reply Br. 2). As a result, Appellant requests, if we have “not been persuaded to withdraw the rejections” on appeal, that this case be remanded to the Examiner “so that this case may be fairly examined under the new Examination Guidelines.” (*id.*) We decline this request since nothing in *KSR* or the new Examination Guidelines militate against the conclusion of obviousness reached in this case.

DECISION

In summary, we sustain each of the Examiner's § 103 rejections of the claims on appeal. The rejections not under review on appeal are summarily sustained. Accordingly, all of the Examiner's § 103 rejections set out in the Final Rejection are sustained.

The Examiner's decision is AFFIRMED.

No time period for taking any subsequent action in connection with this appeal maybe extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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